Comments of the Solar Energy Industries Association and the California Solar Energy Industries Association on the E3 Draft Net Energy Metering Cost-Effectiveness Study

The Solar Energy Industries Association and California Solar Energy Industries Association (collectively, the Joint Solar Parties) appreciate the opportunity to submit these informal written comments on the analytics and assumptions used in E3's draft analysis. The Joint Solar Parties provide these comments to the Commission's Energy Division in accordance with Ehren Seybert's e-mail dated September 23, 2013.

The Joint Solar Parties would first like to acknowledge the significant work of Energy Division and E3 in developing the draft analysis to this point. While the Joint Solar Parties do not offer a unique critique herein on the calculations performed by E3, we do strongly support the analysis and comments separately submitted on behalf of The Alliance for Solar Choice (TASC) and The Vote Solar Initiative (Vote Solar), and encourage Energy Division and E3 to incorporate the TASC and Vote Solar recommendations in the final analysis.

The Joint Solar Parties also believe it is imperative to note the significant flaws in aspects of the draft study's scope. These include, most notably, the inclusion of an all-generation approach, whereby the study assumes that customers who make private investments to produce their own renewable energy, and reduce their demand on the grid, are imposing costs on other customers. The impact of buying less electricity due to on-site consumption of solar is no different than turning off a light or installing a more efficient appliance, and should not be considered a cost impact associated with net energy metering. The Joint Solar Parties recognize the fact that this approach was mandated as part of AB 2514 (Bradford), though we continue to believe it does not accurately reflect the true impacts of the Net Energy Metering Program. We appreciate that the study appears to recognize this flaw by stating that "[T]he all generation scenario included in the attached report likely overestimates the costs that are directly associated with NEM."[1]

Additionally, many of the results in the analysis are presented as 2012 or 2020 single-year snapshots of net energy metering impacts. This approach significantly undervalues PV installations, which have an expected operating life of 30 years. The 2020 single-year snapshot ignores all of the benefits that these installations provide during their useful years of operation beyond 2020. During these later years, the avoided costs associated with solar—and therefore the benefits to ratepayers— increase, because fossil fuel costs and greenhouse gas emissions costs increase into the future. Therefore, annualized impacts that account for the full lifecycle costs and benefits of solar PV are more accurate. The Joint Parties thus strongly recommend that the annualized 20-year lifecycle results should be the "headline" numbers in the executive summary of the study, particularly given that the CPUC's 2010 net metering study expressed its results

[1] E3 Draft Study at p. 4

using these metrics. As now drafted, the shift to single-year snapshot numbers as the primary conclusion of the study has the potential to confuse non-technical readers whose review of the study focuses on the executive summary. The study should also highlight that, based on the results in Table 40, the impacts of NEM at full CSI build-out in 2020 are actually lower than calculated in the 2010 study, and the final report should explain why this is true. The Joint Parties note that these lifecycle results for the full CSI were among the "headline" numbers in the 2010 study (see Table 5 in the executive summary for that study).

The analysis also assumes that the 100% renewable output from net metered solar has the same value in 2020 as 33% renewable grid power, and thus the additional renewable penetration, above the RPS, provided by distributed solar has no value as incremental renewable generation which will help California meet its ambitious long-term carbon reduction goals. However, from a long-term perspective this additional penetration of renewables beyond the RPS target provides supplementary benefits to utility ratepayers that should be fully valued in assessing the avoided cost benefits of renewable DG resources.

However, we do agree with some important caveats included in the draft text. These include the recognition that expected changes in rate design will have considerable impacts on the cost impacts of the Net Energy Metering Program and an acknowledgement that the study's scope does not include the considerable economic and public health benefits provided by the Net Energy Metering Program, benefits which are aligned with the legislative intent of the Program. Specifically, with regards to the impact of rate design changes, the Joint Parties note that, when comparing the 2010 study to the results of the 2013 analysis on a lifecycle and annualized value basis, the study concludes that the overall net cost per kWh exported is lower in the 2013 analysis "due to retail rate escalation rates being lower than they were forecast to be in 2010."[2] While the draft study articulates a clear connection between rate design changes and the cost impacts of net energy metering, the draft study fails to explain how the rate changes implemented since the 2010 study have impacted the results of the latest analysis. Residential rates have changed dramatically in all three investor-owned utility territories since the 2010 analysis, and understanding the extent to which these rate design changes have impacted the latest analysis would be extremely helpful for all parties. Thus, the Joint Parties also request that the final study include an explanation of how rate design changes since the 2010 study have impacted the latest results.

Finally, the Joint Solar Parties would like to emphasize that we are encouraged by the draft study's cost of service analysis which concludes that, overall, net energy metering customers are paying more than the costs required to be served by the investor-owned utilities. In essence, the cost of service analysis indicates that net energy metering customers are paying their fair share, and any perceived challenges associated with the Net Energy Metering Program is a product of rate design and not full retail net energy metering.

[2] E3 Draft Study at p. 78

We again thank Energy Division and E3 for their obvious hard work on this draft study and appreciate the opportunity to comment before the study's completion.

Respectfully submitted,

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